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Remote protection of three phase distribution transformers.

It is desirable to provide remote digital protection of distribution transformers. A protection system is disclosed which is able to detect increases in positive sequence current and to detect increases in negative sequence current resulting from unbalanced disturbance on a distribution cable feeding a transformer. The triggering of a circuit breaker (19) is then initiated to isolate the supply cable (10) in response to a detected increase in negative sequence current only if there is a simultaneous detected increase in the positive sequence current in excess of a respective threshold increase.

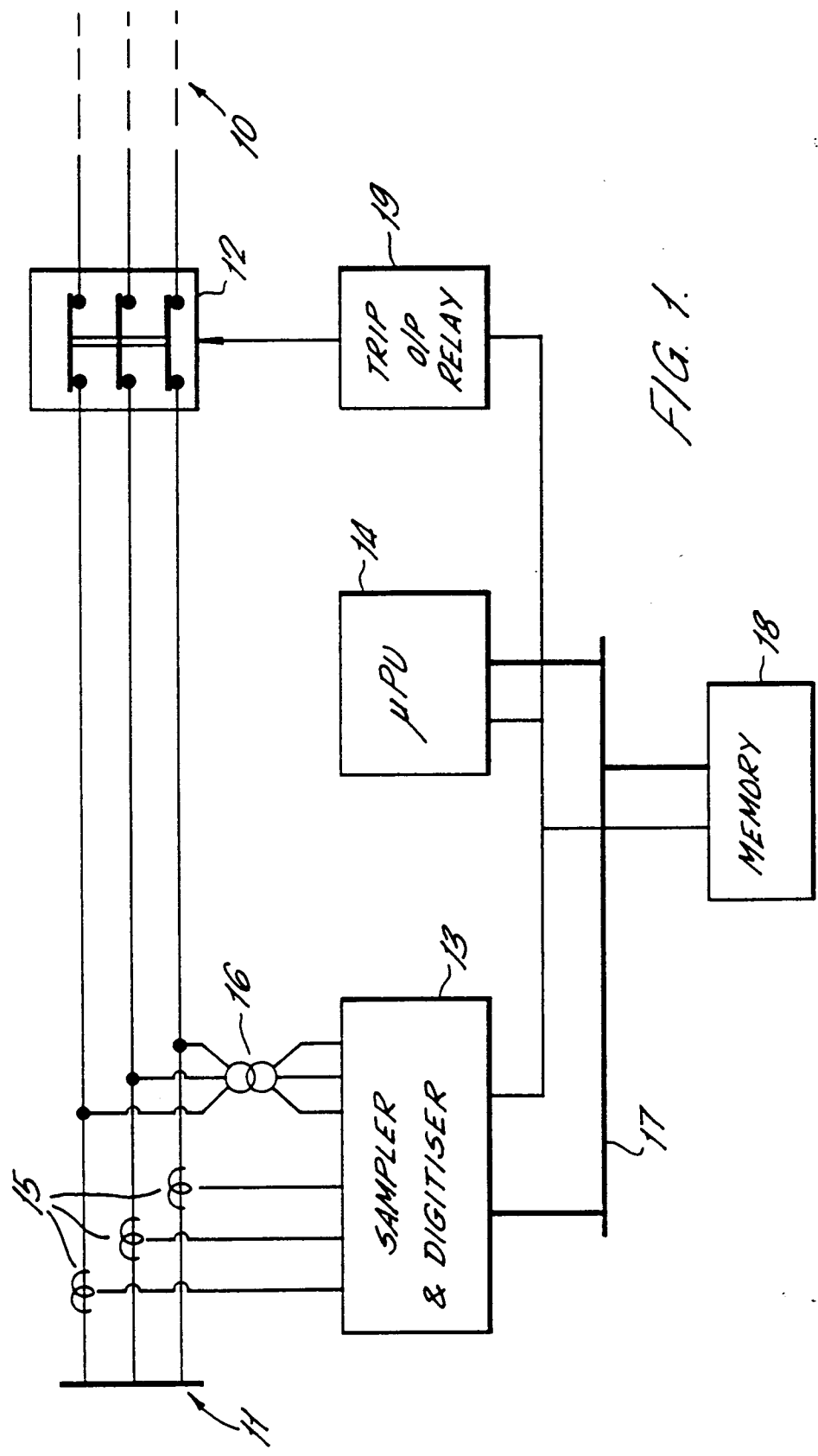


FIG. 1.



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number

EP 91 20 1780

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.4)
A	US-A-4 148 087 (PHADKE) * column 7, line 1 - line 61; claim 12 * ---	1	H02H3/44
A	US-A-4 377 833 (UDREN) * column 5, line 17 - column 6, line 29; claim 1; figures 1-5 * ---	1	
A	IEEE TRANSACTIONS ON POWER APPARATUS AND SYSTEMS, vol. 96, no. 2, March 1977, NEW YORK US A.G. PHADKE: 'Fundamental basis for distance relaying with symmetrical components' * the whole document * ---	1	
A	WORLD PATENTS INDEX Section EI, Week 7705, 15 March 1977 Derwent Publications Ltd., London, GB; Class U, AN 77-A9912Y & SU-A-514 389 (ZILBERMAN) 2 July 1976 * abstract * ---	1	
A	US-A-4 600 961 (WESTINGHOUSE) * the whole document * -----	1	TECHNICAL FIELDS SEARCHED (Int. Cl.4) H02H
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 05 NOVEMBER 1991	Examiner LIBBERECHT L. A.
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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